

What is claimed is:

1. A human monoclonal antibody or functional fragment thereof, comprising at least one Complementarity Determining Region (CDR) having substantially the amino acid sequence of a CDR of SEQ ID NO:2 or SEQ ID NO:4.

2. The human monoclonal antibody of claim 1, wherein said functional fragment is selected from the group consisting of Fv, Fab, Fab', or F(ab')<sub>2</sub>.

3. The human monoclonal antibody or functional fragment of claim 1, further comprising a label.

4. The human monoclonal antibody or functional fragment of claim 3, wherein said label comprises a cytotoxic or cytostatic agent.

5. A pharmaceutical composition, comprising the human monoclonal antibody or functional fragment of claim 1 and a pharmaceutical carrier.

6. A CDR or functional fragment thereof, comprising substantially the amino acid sequence of a CDR of SEQ ID NO:2 or SEQ ID NO:4.

7. An isolated nucleic acid encoding a human monoclonal antibody or functional fragment thereof, comprising a nucleotide sequence encoding substantially the amino acid sequence of at least one CDR encoded by SEQ ID NO:1 or SEQ ID NO:3.

9. An isolated nucleic acid encoding a CDR,  
5 comprising a nucleotide sequence encoding substantially  
the amino acid sequence of a CDR encoded by SEQ ID NO:1  
or SEQ ID NO:3.

11. The human monoclonal antibody of claim 10,  
wherein said functional fragment is selected from the  
15 group consisting of Fv, Fab, ~~Fab'~~, or F(ab')<sub>2</sub>.

13. The human monoclonal antibody or  
20 functional fragment of claim 12, wherein said label  
comprises a cytotoxic or cytostatic agent.

25            15. A CDR or functional fragment thereof,  
comprising substantially the amino acid sequence of a CDR  
of SEQ ID NO:6 or SEQ ID NO:8.

5 SEQ ID NO:5 or SEQ ID NO:7.

group consisting of Fv, ~~Fab~~, Fab', or F(ab')<sub>2</sub>.

10 comprising a nucleotide sequence encoding substantially  
the amino acid sequence of a CDR encoded by SEQ ID NO:5  
or SEQ ID NO:7.

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group consisting of  $F_v$ ,  $F_{ab}$ ,  $F_{ab'}$ , or  $F(ab')_2$ .

20 functional fragment of claim 19, further comprising a  
label.

comprises a cytotoxic or cytostatic agent.

25            23. A pharmaceutical composition, comprising  
the human monoclonal antibody or functional fragment of  
claim 19 and a pharmaceutical carrier.

24. A human monoclonal antibody or functional fragment produced by the cell line H2420.

25. The human monoclonal antibody of claim 24,  
5 wherein said functional fragment is selected from the group consisting of Fv, Fab, Fab', or F(ab')<sub>2</sub>.

26. The human monoclonal antibody or functional fragment of claim 24, further comprising a label.

10 27. The human monoclonal antibody or functional fragment of claim 26, wherein said label comprises a cytotoxic or cytostatic agent.

28. A pharmaceutical composition, comprising the human monoclonal antibody or functional fragment of  
15 claim 24 and a pharmaceutical carrier.

29. A human monoclonal antibody or functional fragment produced by the cell line H935.

30. The human monoclonal antibody of claim 29,  
20 wherein said functional fragment is selected from the group consisting of Fv, Fab, Fab', or F(ab')<sub>2</sub>.

31. The human monoclonal antibody or functional fragment of claim 29, further comprising a label.

25 32. The human monoclonal antibody or functional fragment of claim 31, wherein said label comprises a cytotoxic or cytostatic agent.

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A pharmaceutical composition comprising a monoclonal antibody or functional fragment thereof, and a pharmaceutical carrier.

A hybridoma cell line producing a monoclonal antibody, said hybridoma cell line being selected from the group consisting of H1140, H2420 and H2421.

A method of reducing neoplastic growth, comprising administering an effective amount of the human monoclonal antibody or functional fragment of claim 1.

The method of claim 35, wherein the cancer is selected from the group consisting of breast cancer, lung cancer and ovarian cancer.

A method of reducing neoplastic growth, comprising administering an effective amount of the human monoclonal antibody or functional fragment of claim 10.

The method of claim 37, wherein the cancer is selected from the group consisting of breast cancer, lung cancer and ovarian cancer.

A method of reducing neoplastic growth, comprising administering an effective amount of a human monoclonal antibody or functional fragment produced by a cell line selected from the group consisting of H1140, H2420 and H2421.

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method of reducing neopl  
prising administering t  
f the human monoclonal  
t of claim 10.

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41. A method of detecting a neoplastic cell in  
5 a sample, comprising:

(b) detecting the specific binding of said human monoclonal antibody or functional fragment to said sample, wherein the presence or increased level compared to a normal cell of said human monoclonal antibody or functional fragment indicates the presence of a neoplastic cell in said sample.

43. A method of detecting a neoplastic cell in a sample, comprising:

(b) detecting the specific binding of said human monoclonal antibody or functional fragment to said sample, wherein the presence or increased level compared to a normal cell of said human monoclonal antibody or functional fragment indicates the presence of a neoplastic cell in said sample.

44. The method of claim 43, wherein said  
30 neoplastic cell is selected from the group consisting of  
breast cancer, ovarian cancer and lung cancer cells.

(a) contacting a sample with a human monoclonal antibody or functional fragment produced by a cell line selected from the group consisting of H1140, H2420 and H935; and

46. The method of claim 45, wherein said  
neoplastic cell is selected from the group consisting of  
15 breast cancer, ovarian cancer and lung cancer cells.

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